

PAPERS READ.

CATALOGUE OF THE DESCRIBED HYMENOPTERA
OF AUSTRALIA.

PART II.

BY WALTER W. FROGGATT.

Family SCOLIIDÆ.

This family has representatives in all parts of the world, and such are plentiful in most parts of Australia, many of them frequenting flowers. Several large species banded with yellow and brown are plentiful about Sydney; another common Sydney species is *S. coronata*, Smith, a large black wasp marked with reddish-orange colour on the head and on either side of the third segment of the abdomen; the markings, however, are very variable. Our largest species is *S. fulva*, the thorax and body of which are densely covered with stiff reddish hairs; its habitat is the Northern parts of Australia. The females form burrows in sand-banks. Westwood says that *Scolia 2-cincta*, Fab., of Europe, burrows to the distance of eighteen inches.

Smith, in his British Museum Catalogue of Hymenoptera, Part iii. (1855), described a number of new species from this country. In the same year Saussure described several in the "Mémoires de la Société de Physique, &c., de Genève"; and later on some others in the "Annales de la Société Entomologique de France" (1858). In 1864 Messrs. Sichel and Saussure wrote a Monograph on this group and added another to our list. Smith, in the Transactions of the Entomological Society of London,

described eight more. While Kirby in going through the British Museum collection revised the genera of this family and added another species in the Transactions of the Entomological Society for 1889.

128. DIMORPHOPTERA.

Dimorphoptera, Smith, Trans. Ent. Soc. 1868.

CLYPEATA, Sm. Trans. Ent. Soc. 1868, p. 240, ♀.

Champion Bay, W.A.

FASTUOSA, Sm. l.c. p. 240, ♀.

Champion Bay, W.A.

MOROSA, Sm. l.c. p. 239, ♀.

Melbourne, Vic.

775 NIGRIPENNIS, Sm. l.c. p. 239, ♂.

Australia.

SABULOSA, Sm. (*Myzine*), Brit. Mus. Cat. Hym. Pt. iii. p. 76 (1855).

Australia.

SCOLIIFORMIS, Sm. Trans. Ent. Soc. 1868, p. 238, ♀.

Moreton Bay, Q.

SIGNATA, Sm. (*Myzine*), Brit. Mus. Cat. Hym. p. 75 (1855).

Australia.

UNICOLOR, Sm. (*Myzine*), l.c. p. 75.

Swan River, W.A.

129. SCOLIA.

Scolia, Fabricius, Syst. Ent. p. 355 (1775).

780 ANTHRACINA, Burm. Abh. Nat. Ges. Halle, I. 16, 3.

King George's Sound, W.A.

BIMACULATA, Sm. Brit. Mus. Cat. Hym. p. 114 (1855).

Pt. Stephens, N.S.W.

CORONATA, Sm. l.c. p. 112.

Adelaide, S.A. ; Sydney, N.S.W.

FERRUGINEA, Fabr. Syst. Ent. II. 231, 14; Syst. Piez. p. 241;

Sm. l.c. p. 114; Sauss. & Sich. Cat. Sp. Scolia, 159 (1864).

Australia ; Ceram.

FLAVIDULA, Sm. l.c. p. 115.

Australia.

- 785 FORMOSA, Guér. Icon. Règn. Anim. t. 69, fig. 10; Voy. Coq. Zool. II. pl. II. p. 252.
Australia.
- FRONTALIS, Sauss. Mém. Soc. Phys. Genève, XIV. pt. 1, p. 38 (1855).
Australia.
- FULVA, Grey, Cuv. Anim. Kingd. (Griffiths), p. 516, pl. LXXI. fig. 1, ♀; Sm. Journ. Linn. Soc. VI. p. 54, No. 9, ♀; Shuck. Trans. Ent. Soc. 1841-43, p. 222; Sauss. & Sich. Cat. Sp. Scolia, pp. 159-165 (1864).
Cape York, Queensland.
- INTRUDENS, Sm. Trans. Ent. Soc. 1868, p. 241.
Champion Bay, W.A.
- LÉVICEPS, Kirby, Trans. Ent. Soc. 1889, p. 447, ♀.
Swan River, W.A.
- 790 PYGMÆA, Sauss. Ann. Soc. Ent. France, VI. (3), p. 217 (1858).
Swan River, W.A.
- RADULA, Fabr. Syst. II. p. 226, 11; Syst. Piez. p. 235, 15.
Australia.
- 7-CINCTA, Fabr. Syst. Ent. 249, 4, ♂.
Pt. Essington, N.A.
- SOROR, Sm. Brit. Mus. Cat. Hym. p. 96 (1855); *Scolia cyanipennis*, St. Farg. Hym. III, p. 524 (1845).
Australia.
- TUBERCULIVENTRIS, Sauss. Mém. Soc. Phys. Genève, XIV. pt. 1, p. 47 (1855).
Australia.
- 795 VERTICOLLIS, Fabr. Ent. Syst. II. p. 234, 25; Syst. Piez. p. 244, 33.
Australia.
- VIRIDIPENNIS, St. Farg. Hym. III. p. 524, 7.
Australia.
- ZONATA, Sm. Brit. Mus. Cat. Hym. p. 116 (1855).
Australia.

130. ELIS.

Elis, Fabr. Syst. Piez. p. 248 (1804).

AUSTRALENSIS, Sauss. & Sich. (*Trielis*), Cat. Sp. Scolia, p. 144
(1864).

Australia.

CONSANGUINEA, Sauss. Mém. Soc. Phys. Genève, XIV. pt. 1,
p. 50 (1855).

Australia.

800 GRACILIS, Sauss. l.c. p. 62.

Australia.

SABULOSA, Sauss. Ann. Soc. Ent. France, VI. (3), p. 234 (1858).

Australia.

TASMANIENSIS, Sauss. Mém. Soc. Phys. Genève, XIV. pt. 1,
p. 61 (1855).

Tasmania.

Family SPHEGIDÆ.

The members of this group of fossorial wasps are numerous in Australia ; several species of the genus *Sphex* are black, of large size, and have the front of the thorax covered with silky shining pubescence, which makes them very noticeable when busy excavating their tunnels in the sand ; one, *S. vestita*, Sm., is a very plentiful species about Sydney towards the end of summer. Of the genus *Pelopæus*, Latreille, handsome yellow-banded wasps with very slender bodies, we have two described species ; these wasps, unlike *Sphex*, form clay nests. Smith described a number in the British Museum Catalogue of Hymenoptera, Part iv. (1856), and added to them in the Transactions of the Entomological Society of London (1868), and in Brenchley's "Cruise of the Curaçoa" (1873). Saussure described several in the Hymenoptera of the "Reise Novara" ; while Westwood formed the genus *Aphelotoma* for an insect from Tasmania.

131. AMMOPHILA.

Ammophila, Kirby, Trans. Linn. Soc. IV. (1804).

ARDENS, Sm. Trans. Ent. Soc. 1868, p. 247.

Champion Bay, W.A.

CLAVUS, Fabr. (*Sphex*), Ent. Syst. II. p. 205; Piez. Syst.
p. 206.

Australia.

805 IMPATIENS, Sm. Trans. Ent. Soc. 1868, p. 247.

Champion Bay, W.A.

INSTABILIS, Sm. Brit. Mus. Cat. Hym. p. 214 (1856).

Swan River, W.A.; Pt. Essington, N.A.

SUSPICIOSA, Sm. l.c. p. 214.

Swan River, W.A.

132. PELOPÆUS.

Pelopæus, Latr. Hist. Nat. Ins. XIII. (1804).

FORMOSUS, Sm. Brit. Mus. Cat. Hym. p. 230 (1856).

Australia.

LÆTUS, Sm. l.c. p. 229, pl. VII. fig. 1.

N. S. Wales; Pt. Essington, N.A.; Macintyre River, Q.;

Swan River, W.A.; Australia and Ceram.

133. SPHEX.

Sphex, Fabr. Ent. Syst. II. (1793).

810 AMATOR, Sm. Brit. Mus. Cat. Hym. p. 246 (1856).

Australia.

ARCUATA, Christ, Hym. p. 312.

Australia.

ARGENTIFRONS, Sm. Trans. Ent. Soc. 1868, p. 248.

Champion Bay, W.A.

CANESCENS, Sm. Brit. Mus. Cat. Hym. p. 246 (1856).

Australia.

CARBONARIA, Sm. l.c. p. 247.

Sydney, N.S.W.

- 210 CATALOGUE OF THE DESCRIBED HYMENOPTERA OF AUSTRALIA,
- 815 CLAVIGERA, Sm. l.c. p. 247.
Australia.
- COGNATA, Sm. l.c. p. 248.
Australia.
- DECORATA, Sm. Brenchley's Cruise of Curaçoa, p. 461,
pl. XLIV. fig. 4.
N. W. Australia.
- EPHIPPIUM, Sm. Brit. Mus. Cat. Hym. p. 249, pl. vi. fig. 3
(1856).
Pt. Essington, N.A.
- FUMIPENNIS, Sm. l.c. p. 249.
Adelaide, S.A.
- 820 GLOBOSA, Sm. l.c. p. 251.
Tasmania.
- GODEFFROYI, Sauss. Ent. Zeit. Stettin, 1869, p. 57.
Cape York, N.Q.
- LUCTUOSA, Sm. Brit. Mus. Cat. Hym. p. 250 (1856).
Swan River, W.A.
- MODESTA, Sm. l.c. p. 248.
Australia.
- OBSCURELLA, Sm. l.c. p. 251.
Tasmania.
- 825 OPULENTA, Sm. l.c. p. 250.
Richmond River, N.S.W.
- PRÆTEXTA, Sm. Brenchley's Cruise of Curaçoa, p. 461, pl. XLIV.
fig. 5.
Moreton Bay, Q.
- VESTITA, Sm. Brit. Mus. Cat. Hym. p. 248 (1856).
N. S. Wales.
- VIDUA, Sm. l.c. p. 249.
Australia.

134. HARPACTOPUS.

- Harpactopus*, Sm. Brit. Mus. Cat. Hym. (1856).
- AUSTRALIS, Sauss. Reise Novara, Hym. p. 43, fig. 24.
Australia.

830 *ÆVUS*, Sm. Brit. Mus. Cat. Hym. p. 265 (1856); Sauss. Reise Novara, Hym. p. 42.
Swan River, W.A.

135. APHELOTOMA.

Aphelotoma, Westwood, Trans. Ent. Soc. (1) III. (1841).

TASMANICA, Westw. Trans. Ent. Soc. III. p. 226, pl. XII. fig. 4, ♀; Arch. Ent. II. p. 65, pl. LXV. fig. 3, ♂; Sm. Brit. Mus. Cat. Hym. p. 273, pl. VII. fig. 4 (1856).

Tasmania.

Family POMPILIIDÆ.

Some of the tropical species of this family are the largest and most ferocious of known wasps; they belong to the genus *Pepsis*, and are black with beautiful metallic lustre on the wings. Saussure has described one species of this genus from Australia.

Most of our species belong to the genus *Pompilus*; these have long legs armed with large spurs, and run very rapidly over the ground, constantly agitating their wings as they go; several of our larger species have bright yellow wings tipped with black.

From their large size and handsome appearance they were among some of the first of our Hymenoptera described by Fabricius from specimens in the Banksian Museum. In the British Museum Catalogue of Hymenoptera, Part iii. (1855), Smith catalogued these, and others previously described; and he described a number of others in the British Museum. Mr. Smith has since described many new species in the Transactions of the Entomological Society of London, 1862, 1864, 1868, 1869; in the Annals and Magazine of Natural History for 1873; in Brenchley's "Cruise of the Curacoa," and in "New Species of Hymenoptera" (1879), a British Museum publication published after his death in the early part of the year. Saussure, in the "Reise Novara, Hymenoptera," also described a number of this group, and more recently, Kohl, in several papers on this family published in the Verhandlungen z.-b. Gesellschaft in Wien (1886) has greatly enriched our list.

136. POMPILUS.

Pompilus, Fabr. Ent. Syst. Suppl. (1798).

AHASVERUS, Kohl, Verh. z.-b. Gesell. Wien, XXXVI. pp. 317
and 333, ♂ (1886).

W. Australia.

ANTENNALIS, Sm. Brit. Mus. Cat. Hym. p. 161 (1855).

Adelaide, S.A.

APATELUS, Kohl, Verh. z.-b. Gesell. Wien, XXXVI. pp. 315,
330, ♀ (1886).

Swan River, W.A.

835 AURIFRONS, Sm. Brit. Mus. Cat. Hym. p. 161 (1855).

Australia.

AUSTRALIS, Guér. Voy. Coq. Zool. II. p. 260.

Sydney, N.S.W.

CINEREUS, Fabr. Ent. Syst. Suppl. p. 250, 22; Syst. Piez.
p. 194, 31; *Sphex cinerea*, Fabr. Ent. Syst. II. p. 208, 40.

Australia.

CONSIMILIS, Sm. N. Sp. Hym. Brit. Mus. p. 152 (1879).

Queensland.

DISTINCTUS, Sm. Trans. Ent. Soc. 1868, p. 242.

Champion Bay, W.A.

840 DIVERSUS, Sm. l.c. p. 243.

Sydney, N.S.W., or Moreton Bay, Q.

ERYTHROSTETHUS, Sm. Brit. Mus. Cat. Hym. p. 162 (1855).

Australia.

FASCIATUS, Fabr. Syst. Piez. p. 194, 30; *Sphex fasciata*, Fabr.
Syst. II. p. 213, 60.

N. S. Wales, Queensland and Tasmania.

FLAVICORNIS, Sm. Brit. Mus. Cat. Hym. p. 163 (1855).

Pt. Stephens, N.S.W.

FUGAX, Fabr. Ent. Syst. Suppl. p. 250; Syst. Piez. p. 194;
Sphex fugax, Fabr. Ent. Syst. II. p. 213; *Sphex nitida*,
Fabr. Ent. Syst. II. 214; *Pompilus nitidus*, Fabr. Syst.
Suppl. 250; Syst. Piez. 195; Sm. l.c. p. 163 (1855).

Australia.

- 845 *FULVIPENNIS*, Sm. N. Sp. Hym. Brit. Mus. p. 151 (1879).
S. Australia.
- INFANDUS*, Sm. Trans. Ent. Soc. 1868, p. 244.
Australia.
- IRRITABILIS*, Sm. l.c. p. 243.
Australia.
- LABILIS*, Sm. N. Sp. Hym. Brit. Mus. p. 151 (1879).
Queensland.
- LUGUBRIS*, Sm. Trans. Ent. Soc. 1868, p. 422.
Champion Bay, W.A.
- 850 *LUNATUS*, Sm. Brit. Mus. Cat. Hym. p. 164 (1855).
S. Australia ; Sydney, N.S.W.
- MELANCHOLICUS*, Sm. Trans. Ent. Soc. 1868, p. 244.
Champion Bay, W.A.
- MOLESTUS*, Sm. Trans. Ent. Soc. I. (3), p. 54 (1862).
Sydney, N.S.W.
- MORIO*, Fabr. (*Sphex*), Ent. Syst. II. p. 208 ; Syst. Piez. p. 187.
N. S. Wales, S. Australia, Australia.
- NUBILIPENNIS*, Sm. Brit. Mus. Cat. Hym. p. 164, ♀ (1855) ;
N. Sp. Hym. Brit. Mus. p. 152, ♂ (1879).
Adelaide, S.A.
- 855 *OPIMUS*, Kohl, Ver. z.-b. Gesell. Wien, XXXVI. pp. 314,
331, ♀ (1886).
Swan River, W.A.
- ORNATIPENNIS*, Sm. Brit. Mus. Cat. Hym. p. 165 (1855).
Australia.
- PACHYCERUS*, Kohl, Ver. z.-b. Gesell. Wien, XXXVI. p. 317, ♂,
p. 314, ♀, p. 333 (1886).
Australia.
- PICTIFRONS*, Sm. Brit. Mus. Cat. Hym. p. 165, (1855).
Adelaide, S.A.
- PICTIPENNIS*, Sm. l.c. p. 165.
Australia.

860 POLLENS, Kohl, l.c. pp. 314, 332.

Tasmania.

RAPTOR, Sm. Trans. Ent. Soc. I (3), p. 54 (1862).

Sydney, N.S.W.

SANGUINOLENTUS, Sm. N. Sp. Hym. Brit. Mus. p. 152 (1879).

Swan River, W.A.

SEMILUCTUOSUS, Sm. Brit. Mus. Cat. Hym. p. 166 (1855).

Australia.

SPECTRUM, Kohl, Ver. z.-b. Gesell. Wien, XXXVI. pp. 314,
329 (1886).

Sydney, N.S.W.

865 TRICOLOR, Sm. Trans. Ent. Soc. 1868, p. 242.

Adelaide, S.A.

TUBERCULATUS, Sm. Brit. Mus. Cat. Hym. p. 166 (1855).

Houtman's Abrolhos, W.A.

VELOX, Sm. Trans. Ent. Soc. 1868, p. 241.

Australia.

VESPOIDES, Sm. l.c. p. 244.

Moreton Bay, Q. ; S. Australia.

VIDUATUS, Sm. Brit. Mus. Cat. Hym. p. 167 (1855).

Australia.

137. PRIOCNEMIS.

Priocnemis, Schiödte, Kröyer, Nat. Tiddssk. I. (1837).

870 AFFECTATA, Sm. Trans. Ent. Soc. 1868, p. 245 ; Brenchley's

Cruise of Curaçoa, p. 460, pl. XLIV. fig. 2.

S. Australia ; Moreton Bay, Q.

DEFENSOR, Sm. Trans. Ent. Soc. 1868, p. 245.

S. Australia.

EPHIPPIATA, Sm. l.c. p. 246 ; Brenchley's Cruise of Curaçoa,

p. 460, pl. XLIV. fig. 2.

Adelaide, S.A.

POLYDORUS, Sm. Trans. Ent. Soc. 1868, p. 246.

Moreton Bay, Q.

138. FERREOLA.

Ferreola, St. Fargeau, Hym. III. (1845).

COLLARIS, Fabr. (*Sphex*), Syst. Ent. II. p. 208; *Pompilus collaris*, Fabr. Syst. Piez. p. 188; *Salix collaris*, Dahlb. Hym. Europ. p. 441.

Australia.

875 FRONTALIS, Fabr. (*Sphex*), Syst. Ent. II. p. 209; *Pompilus frontalis*, Fabr. Syst. Piez. p. 188.

Australia.

ZEBRATA, Sauss. Reise Novara, Hym. p. 48, fig. 29.

Sydney, N.S.W.

139. CENOCERUS.

Cenocerus, Dahlbom, Hym. Europe, I. (1843).

RAMOSUS, Sm. Trans. Ent. Soc. II. (3), p. 396, pl. XXI. fig. 4 (1864).

Australia.

140. AGENIA.

Agenia, Schiödte, Kröy. Nat. Tidsskr. (1837).

FUSIFORMIS, Sauss. Reise Novara, Hym. p. 53, fig. 34.

Sydney, N.S.W.

NOVARE, Sauss. l.c. p. 54, fig. 36.

Sydney, N.S.W.

141. POGONIUS.

Pogonius, Dahlbom, Hym. Europe, I. (1843).

880 LUNULATUS, Sauss. Reise Novara, Hym. p. 58, fig. 38.

Sydney, N.S.W.

142. MYGNIMIA.

Mygnimia, Sm. Brit. Mus. Cat. (1855).

AUSTRALASIE, Sm. Ann. Mag. Nat. Hist. 1873, p. 259.

N. W. Australia.

143. PEPSIS.

Pepsis, Fabr. Syst. Piez. (1804).

AUSTRALIS, Sauss. Reise Novara, Hym. p. 65, fig. 42.

Sydney, N.S.W.

144. DOLICHURUS.

Dolichurus, Latr. Gen. Crus. Ins. IV. (1809).

CARBONARIUS, Sm. Trans. Ent. Soc. 1869, p. 303.
Champion Bay, W.A.

145. MAURILLUS.

Maurillus, Sm. Brit. Mus. Cat. (1855).

AUSTRALIS, Sm. Brit. Mus. Cat. Hym. p. 170, ♀ (1855).
N.W. coast of Australia.

Family LARRIDÆ.

Most of the members of this family described from Australia belong to the genus *Pison*, Jurine. They are medium-sized wasps, generally black, and often ornamented with golden pubescence forming bands or fasciæ on the segments of the abdomen. Very little is known of their habits, but Smith says "that these insects are nest-builders, and that they construct cells similar to those of *Pemphredon*, and store them with spiders for their young." In the Transactions of the Entomological Society of London, Vol. II. (1837-40), Shuckard gives a long account of the genus, and describes several new species. Smith, in the Proceedings of the same Society for 1869, catalogued those previously described, and added a number of new ones from Australia, and also formed the genus *Parapison*, under which he described three species from India, Ceylon, and this country. The third genus, *Tachytes*, Panzer, the European species of which are captured in sand-banks according to Westwood, are represented in this country by four described species, all about half an inch in length, and of a shining black colour.

146. PISON.

Pison, Jurine, Ins. Ligur. II. (1808).

885 AURATUS, Shuck. Trans. Ent. Soc. II. p. 78 (1837).
Australia.

- AURIFEX, Sm. l.c. 1869, p. 293.
Australia.
- BASALIS, Sm. l.c. p. 292.
Australia.
- COLLARE, Kohl, Verh. z.-b. Gesell. Wien, XXXIII. p. 337.
Duke of York Id. ; N. Australia.
- DECIPIENS, Sm. Trans. Ent. Soc. 1869, p. 294.
Champion Bay, W.A.
- 890 DIMIDIATUS, Sm. l.c. p. 295.
Champion Bay, W.A.
- FENESTRATUS, Sm. l.c. p. 291 ; *Pison nitidus*, Sm. l.c. 1868,
p. 248.
Champion Bay, W.A.
- FESTIVUS, Sm. l.c. 1869, p. 296.
Champion Bay, W.A.
- FUSCIPENNIS, Sm. l.c. p. 294.
Champion Bay, W.A.
- MARGINATUS, Sm. Brit. Mus. Cat. Hym. p. 314 (1856).
Hunter River, N.S.W.
- 895 OBLIQUUS, Sm. l.c. p. 316.
Tasmania.
- PERPLEXUS, Sm. l.c. p. 314.
Australia.
- PUNCTULATUM, Kohl, Verh. z.-b. Gesell. Wien, XXXIII.
p. 336.
Peak Downs, Q.
- RUFIPES, Shuck. Trans. Ent. Soc. II. p. 79 (1837).
Tasmania.
- SEPARATUS, Sm. Trans. Ent. Soc. 1869, p. 294.
Champion Bay, W.A.
- 900 SIMILLIMUS, Sm. l.c. p. 292.
Australia.

SPINOLÆ, Shuck. l.c. p. 76 (1837); Sauss. Reise Novara, Hym. p. 66; *australis*, Sauss. Mém. Soc. Phys. Genève XIV. p. 11 (1855); *tasmanicus*, Sm. Brit. Mus. Cat. Hym. p. 316 (1856).

Sydney, N.S.W.; Tasmania.

TIBIALIS, Sm. Trans. Ent. Soc. 1869, p. 292.

W. Australia.

VESTITUS, Sm. Brit. Mus. Cat. Hym. p. 315 (1856).

Australia.

WESTWOODII, Shuck. Trans. Ent. Soc. II. p. 77 (1837).

Tasmania.

147. PISONITUS.

Pisonitus, Shuck. Trans. Ent. Soc. 1837.

905 RUFICORNIS, Sm. (*Pison*), Brit. Mus. Cat. Hym. p. 315 (1856).
Macintyre River, Q.

148. PARAPISON.

Parapison, Sm. Trans. Ent. Soc. 1869.

RUFICORNIS, Sm. Trans. Ent. Soc. 1869, p. 299.

Australia.

149. TACHYTES.

Tachytes Panzer, Krit. Revis. Ins. Deutschl. (1806).

AUSTRALIS, Sauss. Reise Novara, Hym. p. 68.

Sydney, N.S.W.

HYPOLÉIUS, Sm. Brit. Mus. Cat. Hym. p. 302 (1856).

Swan River, W.A.

TACHYRRHOSTUS, Sauss. Mém. Soc. Phys. Genève, XIV. p. 18,
fig. 5 (1855); Sm. Brit. Mus. Cat. Hym. p. 301 (1856).

Australia.

150. LARRADA.

Larrada, Sm. Brit. Mus. Cat. Hym. (1856).

910 AUSTRALIS, Sauss. (*Tachytes*), Mém. Soc. Phys. Genève, XIV.
p. 20, pl. IX. fig. 6 (1855).

Australia.

CHRYSONOTA, Sm. Trans. Ent. Soc. 1869, p. 304.

Champion Bay, W.A.

CRASSIPES, Sm. Ann. Mag. Nat. Hist. XII. (4) p. 294 (1873).

S. Australia.

FEMORATUS, Sauss. (*Tachytes*), Mém. Soc. Phys. Genève, XIV.

19, t. 8, fig. VII. (1855); Reise Novara, Hym. p. 74;

Sm. Brit. Mus. Cat. Hym. p. 285 (1856).

Australia.

NIGRIPES, Sauss. Reise Novara, Hym. p. 74.

Tasmania.

151. ASTATA.

Astata, Latr. Précis Caract. Ins. (1796).

915 AUSTRALASLÆ, Shuck. Trans. Ent. Soc. II. p. 72 (1837)

Australia.

Family NYSSONIDÆ.

This group comprises a number of genera, most of which contain only one or two described Australian species. Of the genus *Stizus*, Latreille, we have one species, *S. pectoralis*, Smith, from Queensland, a large ferruginous-coloured wasp somewhat like a *Thynnus*, but the shape of the body and the antennæ enlarged at the tips plainly show that it does not belong to the latter. The genus *Gorytes*, Latreille, contains four described species, black insects of medium size, generally variegated with yellow. Most of the members of this family have been described by Smith in the British Museum Catalogue, Part iv. (1856), in the Transactions of the Entomological Society (1862-64, 1868, 1869), and in the Annals and Magazine of Natural History for 1873.

152. LARRA.

Larra, Klug, Symb. Phys. V. (1829).

HIRTULA, Sm. Brit. Mus. Cat. Hym. p. 344 (1856).

Adelaide, S.A.

220 CATALOGUE OF THE DESCRIBED HYMENOPTERA OF AUSTRALIA,
PSILOCERA, Kohl, Verh. z.-b. Gesell. Wien, XXXIII. p. 355.
Australia

153. ACANTHOSTETHUS.

Acanthostethus, Sm. Trans. Ent. Soc. 1869.

BASALIS, Sm. Trans. Ent. Soc. 1869, p. 307, pl. vi. fig. 3.
Australia.

154. STIZUS.

Stizus, Latr. Gen. Crus. Ins. IV. (1804).

PECTORALIS, Sm. Brit. Mus. Cat. Hym. p. 337 (1856).
Rockhampton, Q.

155. MISCOTHYRIS.

Miscothyris, Sm. Trans. Ent. Soc. 1869.

920 THORACICUS, Sm. Trans. Ent. Soc. 1869, p. 308, pl. vi. fig. 5.
Champion Bay, W.A.

156. GORYTES.

Gorytes, Latr. Hist. Nat. XIII. (1805).

BELLICOSUS, Sm. Trans. Ent. Soc. I. (3), p. 55 (1862-64).
Adelaide, S.A.

DECORATUS, Handlirsch, SB. Ak. Wien, CXVII. Abth. 1,
p. 542 (1889).

Australia.

EXIMIUS, Sm. Trans. Ent. Soc. I. (3), p. 55.
Adelaide, S.A.

ORNATUS, Sm. l.c. 1868, p. 248.
Champion Bay, W.A.

925 TARSATUS, Sm. Brit. Mus. Cat. Hym. p. 336 (1856).
Adelaide, S.A.

157. NYSSON.

Nysson, Latr. Hist. Nat. XIII. (1804).

MYSTICUS, Gerstaecker, Abhandl. Nat. Gesell. in Halle, X.
p. 112.
Swan River, W.A.

158. SERICOPHORUS.

Sericophorus, Shuckard, MSS.; Smith, Ann. Mag. Nat. Hist. 1851.

BICOLOR, Sm. Ann. Mag. Nat. Hist. XII. (4), p. 405 (1873).
Swan River, W.A.

CHALYBEUS, Sm. Ann. Mag. Nat. Hist. VII. (2), p. 32 (1851);
Brit. Mus. Cat. Hym. p. 356, pl. ix. fig. 1 (1856);
Tachyrrhostus cyaneus, Sauss. Mém. Soc. Phys. Genève,
XIV. p. 26, 14 (1855).

Australia.

RELUCENS, Sm. Brit. Mus. Cat. Hym. p. 357 (1856).
Adelaide, S.A.

930 VIRIDIS, Sauss. Mém. Soc. Phys. Genève, XIV. p. 25, No. 13
(1855).

Australia.

Family PHILANTHIDÆ.

These fossorial wasps can always be easily distinguished from any of the other groups of this division by the deep constrictions round each segment of the abdomen. They are generally black, with dense punctures all over them, and some are marked with yellow bands and spots. All our species come under the genus *Cerceris*, Latreille; and with the exception of one described by Saussure in the "Reise Novara," have been worked up by Smith in the British Museum Catalogue, Part iv. (1856), and in the Annals and Magazine of Natural History for 1873.

159. CERCERIS.

Cerceris, Latr. Hist. Nat. Crus. et Ins. XIII. (1804).

ANTIPODES, Sm. Brit. Mus. Cat. Hym. p. 451 (1856).
Australia.

AURANTIACA, Sm. Ann. Mag. Nat. Hist. XII. (4), p. 414
(1873).

S. Australia.

AUSTRALIS, Sauss. Mém. Soc. Phys. Genève, XIV. p. 6, No. 2
(1855); Reise Novara, Hym. p. 93; *nigro-cincta*, Sm.
Brit. Mus. Cat. Hym. p. 450 (1856).

Sydney, N.S.W.; Adelaide, S.A.

FLUVIALIS, Sm, Ann. Mag. Nat. Hist. XII. (4), p. 412 (1873).
Swan River, W.A.

935 OPPOSITA, Sm. l.c. p. 413.

Lower Plenty, Victoria.

S.EVA, Sm. l.c. p. 414.

Lower Plenty, Victoria.

VARIPES, Sm. l.c. p. 413.

Adelaide, S.A.

VENUSTA, Sm. l.c. p. 413.

Queensland.

Family CRABRONIDÆ.

All the Australian wasps belonging to this family are referable to the world-wide genus *Crabro*, Fabricius. They are medium-sized insects, black, and generally banded on the body with red or orange colour. Two from Tasmania were described by Smith in 1856, and three others by the same author from South Australia and Queensland in 1868.

160. CRABRO.

Crabro, Fabr. Ent. Syst. II. (1793).

NEGLECTUS, Sm. Trans. Ent. Soc. 1868, p. 249.

S. Australia.

940 NIGRO-MACULATUS, Sm. l.c. p. 249.

Moreton Bay, Q.

TASMANICUS, Sm. Brit. Mus. Cat. Hym. p. 425 (1856).

Tasmania.

TRICOLOR, Sm. l.c. p. 394.

Tasmania.

TRIDENTATUS, Sm. Trans. Ent. Soc. 1868, p. 250.

Moreton Bay, Q.

Family BEMBICIDÆ.

The genus *Bembex* is well represented in this country, and we have a number of large and handsome described species. The European species are said to make their nests in the sand, and to provision them with flies. Smith has described the greater number of our known species in the British Museum Catalogue, Hymenoptera, Part iv. (1856), and in the Annals and Magazine of Natural History, XII. (4) [1873].

161. BEMBEX.

Bembex, Fabr. Mant. (1787).

ATRIFRONS, Sm. Brit. Mus. Cat. Hym. p. 327 (1856).

Swan River, W.A.

945 CRABRONIFORMIS, Sm. Ann. Mag. Nat. Hist. XII. (4), p. 296 (1873).

Pt. Essington, N.A.

FLAVIFRONS, Sm. Brit. Mus. Cat. Hym. p. 324 (1856).

Australia.

FLAVIPES, Sm. l.c. p. 325.

Australia.

FLAVILABRIS, Sm. Ann. Mag. Nat. Hist. XII. (4), p. 299, (1873).

W. Australia.

FLAVIVENTRIS, Sm. l.c. p. 299.

Swan River, W.A.

950 FURCATA, Erichs. Wieg. Arch. 1842, p. 226; Sm. Brit. Mus. Cat. Hym. p. 328 (1856).

Tasmania; Swan River, W.A.

PALMATA, Sm. Ann. Mag. Nat. Hist. XII. (4), p. 298, (1873); Brit. Mus. Cat. Hym. p. 325 (1856).

N. Australia.

RAPTOR, Sm. Brit. Mus. Cat. Hym. p. 326 (1856).

Adelaide, S.A.

SEVERA, Sm. Ann. Mag. Nat. Hist. XII. (4), p. 297 (1873).

Swan River, W.A.

TRIDENTIFERA, Sm. l.c. p. 298.

Moreton Bay, Q.

955 VARIABILIS, Sm. Brit. Mus. Cat. Hym. p. 325 (1856).

Victoria ; N. S. Wales ; Pt. Essington, N.A. ; Swan River,
W.A.

VESPIFORMIS, Sm. l.c. p. 327.

Adelaide, S.A.

Family MASARIDÆ.

This is a family containing several genera, the members of which are handsome wasp-like insects, parasitic on other wasps, constructing no nests themselves. Shuckard, when he formed the Australian genus *Paragia*, named it "in allusion to its deceptive habit, which is precisely that of a *Vespa*." Saussure wrote a monograph on the tribe *Masaridæ*, forming the third part of his work on the *Vespidae* (Paris, 1856). Previously to this he had written a paper on the family in the *Annales de la Soc. Ent. de France* (1853). Shuckard described the first known Australian species, *Paragia decipiens*, in the *Transactions of the Entomological Society of London* (1837). It is a handsome black wasp with a green tint on head and thorax, and the abdomen of dirty ochre-yellow colour ; this is our commonest species in N. S. Wales. Smith, in the *British Museum Catalogue of Hymenoptera, Part v.* (1857), and in the *Trans. Ent. Society of London* (1864-66-68-69), described a number of others.

162. PARAGIA.

Paragia, Shuck. *Trans. Ent. Soc.* 1837.

AUSTRALIS, Sauss. *Ann. Soc. Ent. France*, I. (3), *Bull.* p. XXI.
(1853) ; *Mon. Fam. Masar.* p. 58, 6, t. 2, fig. 3, ♂ (1856).

Tasmania.

BICOLOR, Sauss. l.c. p. 21 ; *Mon. Fam. Masar.* p. 58, 6, t. 2,
fig. 3, ♂ (1856).

Australia.

BIDENS, Sauss. *Mon. Fam. Masar.* p. 59, 7, ♀ (1856).

Adelaide, S.A.

- 960 CALIDA, Sm. Trans. Ent. Soc. II. (3), p. 392 (1864-6).
Adelaide, S.A.
- CONCINNA, Sm. Trans. Ent. Soc. 1869, p. 251.
Champion Bay, W.A.
- DECIPIENS, Shuck. Trans. Ent. Soc. II. p. 82, pl. VIII. fig. 3
(1837); Sauss. Mon. Fam. Masar. p. 54 (1856); Ann.
Soc. Ent. France, I. p. 21 (1853); Sm. Trans. Ent. Soc.
II. (3), p. 391 (1864-6).
N. S. Wales; Adelaide, S.A., &c.
- EXCELLENS, Sm. Trans. Ent. Soc. 1869, p. 309.
Champion Bay, W.A.
- MOROSA, Sm. Trans. Ent. Soc. 1868, p. 251.
Champion Bay, W.A.
- 965 NASUTA, Sm. l.c. p. 252.
Champion Bay, W.A.
- ODYNEROIDES, Sm. Trans. Ent. Soc. I. (2), p. 42, pl. v. fig. 2,
♀; Sauss. Mon. Fam. Masar. p. 56 (1856).
Hunter River, N.S.W.
- PICTIFRONS, Sm. Brit. Mus. Cat. Hym. p. 2 (1857).
Swan River, W.A.
- PREDATOR, Sauss. Mon. Fam. Masar. p. 59, 8, ♀ (1856).
Australia.
- SAUSSURII, Sm. Brit. Mus. Cat. Hym. p. 2 (1857); *tricolor*,
Sauss. Mon. Fam. Masar. p. 54, ♀ (1856).
Perth, W.A.
- 970 SOBRINA, Sm. Trans. Ent. Soc. 1869, p. 309.
Champion Bay, W.A.
- TRICOLOR, Sm. Trans. Ent. Soc. I. (2), p. 41, t. 5, fig. 1, ♂
(1850); *smithii*, Sauss. Mon. Fam. Masar. p. 55, 3, t. 2,
fig. 1, ♀ (1856).
Adelaide, S.A.
- VENUSTA, Sm. Trans. Ent. Soc. II. (3), p. 393 (1864-6),
Swan River, W.A.
- VESPIFORMIS, Sm. l.c. p. 393, ♀; l.c. 1868, p. 251.
Swan River, W.A.

Family EUMENIDÆ.

The solitary wasps belong to this family, and most of the foreign genera are represented in Australia. Many of them are handsome insects, black and yellow or orange in colour. They are large and aggressive-looking insects, armed with a large sting; several are commonly known as "mason-wasps," from their building large clay nests in any convenient sheltered place, which they provision with the larvæ of moths or spiders. Saussure, who has made the *Vespidæ* a special study, has described most of our wasps in his "Monograph des Guêpes Solitaires," Vol. I. 1851, and in other papers in the *Annales Soc. Ent. France* (1857), in the *Reise Novara, Hymenoptera* (1865), &c. Fabricius described several of our earliest known species in his *Syst. Piez.* (1804). Guérin described some in the "Voyage de la Coquille" (1830), and St. Fargeau dealt with others in his *Natural History, Hymenoptera*, Vol. IV. (1846). Smith, in his *British Museum Catalogue of Hymenoptera*, Part v. (1857), gave a list of these, and described several new species.

163. ELIMUS.

Elimus, Sauss. Mon. Guêpes Sol. p. 7 (1852).

AUSTRALIS, l.c. p. 8.

S. Australia.

164. DISCOLLIUS.

Discollius, Latreille, Gen. Crus. Ins. IV. (1809).

975 ELONGATUS, Sauss. Mon. Guêpes Sol. Suppl. p. 124, 11, pl. vi fig. 7, ♀.

Australia.

EPHIPPIUM, Sauss. l.c. p. 125, 13, pl. vi. fig. 8, ♀.

Australia.

INSIGNIS, Sauss. l.c. p. 126, 14, ♀.

Australia.

SPINOSUS, Sauss. l.c. p. 125, 12, ♀.

N. S. Wales.

VERREAUXII, Sauss. Mon. Guêpes Sol. p. 26, ♀.

Tasmania.

165. EUMENES.

Eumenes, Latr. Hist. Nat. III. (1802).

- 980 ARCUATUS, Fabr. Syst. Piez. p. 287 ; Sauss. Mon. Guêpes Sol. p. 63 ; Sm. Brit. Mus. Cat. Hym. p. 29 (1857) ; Journ. Linn. Soc. VII. p. 37 (1864) ; *Vespa arcuata*, Fabr. Syst. Ent. p. 371, 40 ; Sp. Ins. I. p. 467 ; Mant. Ins. I. p. 292, 66 ; Ent. Syst. II. p. 276, 83 ; Oliv. Ency. Méth. VI. p. 670 ; *Sphex arcuata*, Christ, Hym. p. 312 (1791).

Australia, New Guinea, &c.

- BICINCTA, Sauss. Mon. Guêpes Sol. p. 44.

Central Australia.

- CIRCINALIS, Fabr. Syst. Piez. 286 ; Sauss. Mon. Guêpes Sol. p. 47, No. 27 ; Sm. Brit. Mus. Cat. Hym. p. 22 (1857).

Australia, India, &c.

- ESURIENS, Fabr. Syst. Piez. p. 286, 7 ; Sauss. Mon. Guêpes Sol. p. 56, No. 40 ; *gracilis*, Sauss. l.c. p. 57, No. 41 ; *campiformis*, Sauss. l.c. p. 55, No. 38.

Australia, India, Africa, &c.

- FLUCTUANS, Sauss. Mon. Guêpes Sol. p. 43.

Australia.

- 985 LATREILLEI, Sauss. l.c. p. 51, pl. x. fig. 5.

Australia.

- PHILANTES, Sauss. l.c. p. 54, 37.

Australia.

166. NORTONIA.

Nortonia, Sauss. Ent. Zeit. Stettin, 1869.

- AMALIÆ, Sauss. Ent. Zeit. Stettin, 1869, p. 53.

Rockhampton, Q.

167. ABISPA.

Abispa, Mitchell, Exp. E. Aust. (1838).

- AUSTRALIS, Sm. Brit. Mus. Cat. Hym. Pt. v. p. 42 (1857).

Port Essington, N.A.

- EPHIPPIUM, Fabr. (*Vespa*), Syst. Ent. p. 362, No. 2 ; Mant. Ins. I. p. 287, No. 3 ; Ent. Syst. II. p. 254, 3 ; Syst. Piez. p. 254, 3 ; Christ, Hym. p. 237 ; Oliv. Ency. Méth. VI. p. 677 ; Gmelin. Ed. Linn. Syst. Nat. I. p. 2748, 36 ;

Abispa ephippium, Mitchell, Exped. East Aust. I. 104 ;
Sm. Trans. Ent. Soc. I. (2), p. 180, t. 16, fig. 5 ; *Monorebia ephippium*, Sauss. Mon. Guêpes Sol. p. 100, 2, t. 15,
fig. 9.

Australia.

- 990 SPLENDIDA, Guér. (*Odynerus*), Voy. Coq. Ins. p. 265 ;
Monorebia splendida, Sauss. Mon. Guêpes Sol. p. 99,
No. 1 ; *Abispa splendida*, Sauss. Mon. Guêpes Sol.
Suppl. p. 169, t. 15, fig. 8.

Australia and Tasmania.

168. RHYNCHIUM.

Ryghium, Spin. Ins. Lig. I. (1806) ; *Rhynchium*, Sauss.
Mon. Guêpes Sol. Suppl. 170 (1854-56).

- ALECTO, St. Farg. (*Odynerus*), Hym. II. p. 647, No. 32 ;
Rhynchium alecto, Sauss. Mon. Guêpes Sol. I. p. 114,
20 (1852).

Australia.

- DECORATUM, Sauss. Mon. Guêpes Sol. Suppl. p. 180, No. 72,
t. 9, fig. 6.

Australia.

- MAGNIFICUM, Sm. Trans. Ent. Soc. 1869, p. 310 ; Brenchley's
Cruise of the Curaçoa, p. 463, fig. 4, pl. XLV.

Nicol Bay, N.W.A.

- MIRABILE, Sauss. Mon. Guêpes Sol. p. 106, No. 6, t. 14,
fig. 5 ; Sm. Journ. Linn. Soc. Vol. III. p. 163, ♂ (1859).

Tasmania and Australia.

- 995 ROTHI, Kirby, Journ. Linn. Soc. XVIII. p. 324 (1885).

Queensland.

- SUPERBUM, Sauss. Mon. Guêpes Sol. p. 113.

Australia.

169. ALASTOR.

Alastor, St. Farg. Hym. II. p. 668 (1841).

- ALBOCINCTUS, Sm. Brit. Mus. Cat. Hym. Pt. iv. p. 91 (1857).

Tasmania.

- ARGENTIFRONS, Sm. l.c. p. 90.

Australia.

- AUREOCINCTUS, Guér. (*Odynerus*), Voy. Coq. Zool. p. 266,
t. 9, fig. 4; Sauss. Mon. Guêpes Sol. p. 252, No. 5.
Australia.
- 1000 AUSTRALIS, Sauss. l.c. p. 250, 2.
Australia.
- CARINATUS, Sm. Brit. Mus. Cat. Hym. p. 90 (1857).
Adelaide, S.A.
- CLOTHO, St. Farg. Hym. II. p. 668, 1; Sauss. Mon. Guêpes
Sol. p. 250, 1.
Australia.
- CRUENTATUS, Sauss. Reise Novara, Hym. p. 18, fig. 12.
Sydney, N.S.W.
- EMARGINATUS, Sauss. Mon. Guêpes Sol. p. 254, 18.
Tasmania.
- 1005 ERIURGUS, Sauss. l.c. p. 251, 4.
Australia.
- LACHESIS, Sauss. l.c. p. 251, 3.
Tasmania.
- LATERITUS, Sauss. Reise Novara, Hym. p. 17.
Australia.
- PARCA, Sauss. Mon. Guêpes Sol. p. 254, 9.
Australia.
- PICTETI, Sauss. l.c. p. 256, 12.
Tasmania.
- 1010 PUNCTULATUS, Sauss. l.c. p. 255, 10.
Tasmania.
- SIMILIS, Sauss. l.c. p. 256, 11.
Australia.
- TASMANIENSIS, Sauss. l.c. p. 253, 6.
Tasmania.
- TUBERCULATUS, Sauss. l.c. p. 253, 7.
Tasmania.
170. ODYNERUS.
Odynerus, Latr. Nat. Hist. III. (1804).
- ALARIFORMIS, Sauss. Mon. Guêpes Sol. Suppl. p. 165, t. 14
fig. 6.
Australia.

- 230 CATALOGUE OF THE DESCRIBED HYMENOPTERA OF AUSTRALIA,
- 1015 ALARIS, Sauss. Mon. Guêpes Sol. p. 203, 106, t. 18, fig. 5.
Tasmania.
- ALASTORIPENNIS, Sauss. l.c. p. 147, 34, t. 16, fig. 5.
Tasmania.
- ANGULATUS, Sauss. Mon. Guêpes Sol. Suppl. p. 284, 168, t. 14,
fig. 7.
Australia.
- BALYI, Sauss. l.c. p. 283, 167, t. 14, fig. 6.
Australia.
- BICINCTUS, Fabr. (*Vespa*), Ent. Syst. II. p. 271, 65; Syst.
Piez. 265; St. Farg. Hym. II. p. 644; Sauss. Mon.
Guêpes Sol. Suppl. p. 224; *Odynerus bizonatus*, Boisd.
Voy de l'Astrol. Entom. p. 459; Sauss. Mon. Guêpes
Sol. p. 156, 40.
Australia.
- 1020 BICOLORATUS, Sauss. Mon. Guêpes Sol. Suppl. p. 281, 164.
Australia.
- BICOLOR, Sauss. l.c. p. 284, 169.
Macintyre River, Q.
- CITREO-CINCTUS, Sauss. Reise Novara, Hym. p. 10, fig. 5.
Sydney, N.S.W.
- CLYPEATUS, Sauss. Mon. Guêpes Sol. p. 200, 101, t. 18, fig. 6.
Tasmania.
- CONCOLOR, Sauss. l.c. p. 202, 104, t. 18, fig. 7.
Tasmania.
- 1025 CRUENTATUS, Sauss. Mon. Guêpes Sol. Suppl. p. 221, 115.
Australia.
- DECIPIENS, Sauss. Reise Novara, Hym. p. 11, fig. 6.
Sydney, N.S.W.
- DIEMENSIS, Sauss. Mon. Guêpes Sol. Suppl. p. 201, 103.
Tasmania.
- DIETRICHIANUS, Sauss. Ent. Zeit. Stettin, 1869, p. 54.
Rockhampton, Q.
- DREWSeni, Sauss. Ann. Soc. Ent. France, V. (3), p. 318
(1857).
Australia.

- 1030 *EXTRANÆUS*, Sauss. Mon. Guêpes Sol. Suppl. p. 224; *Odynerus exilis*, Sauss. l.c. p. 224.
Tasmania.
- FLAMMIGER*, Sauss. l.c. p. 282, 166.
N. S. Wales.
- FLAVO-CINCTUS*, Sm. Brit. Mus. Cat. Hym. p. 64 (1857).
Australia.
- FLUVIALIS*, Sauss. Mon. Guêpes Sol. Suppl. p. 215, 106.
Australia.
- MACILENTUS*, Sauss. Reise Novara, Hym. p. 16, fig. 10.
Sydney, N.S.W.
- 1035 *METATHORACICUS*, Sauss. Mon. Guêpes Sol. Suppl. p. 286, 171.
Australia.
- NIGROCINCTUS*, Sauss. l.c. p. 201, 102.
Tasmania.
- PUSILLUS*, Sauss. l.c. p. 287, 172.
Australia.
- SANGUINOLENTUS*, Sauss. l.c. p. 221, 116.
Australia.
- SAUCIUS*, Sauss. l.c. p. 280, 163.
Australia.
- 1040 *SUBALARIS*, Sauss. l.c. p. 280, 162, t. 14, fig. 5.
Australia.
- SUCCINCTUS*, Sauss. Mon. Guêpes Sol. p. 204, 107.
Australia and Tasmania.
- TAMARINUS*, Sauss. l.c. p. 203, 105.
Tasmania.
- TASMANIENSIS*, Sauss. l.c. p. 119, t. 18, fig. 5.
Tasmania.
- TRIANGULUM*, Sauss. Mon. Guêpes Sol. Suppl. p. 285, 170,
t. 14, fig. 8.
Australia.
- 1045 *TUBERCULATUS*, Sauss. Mon. Guêpes Sol. p. 253.
Tasmania and Australia.
- VERNALIS*, Sauss. l.c. p. 148, 35.
Tasmania.



Family VESPIDÆ.

This family contains the two genera into which all our social paper-nest wasps are divided ; in habits both groups are alike, but they are easily and naturally divided into the genera *Icaria*, small wasps in which the apical segments of the abdomen telescope into each other, and *Polistes*, wasps usually much larger and having all the segments of the abdomen closely fitted together, and pointed at the apex. The nests of the first are usually irregular in shape, while those of the latter are mostly round, and sometimes they attain a considerable size. The young wasps when hatched hang head downwards, and are fed by the attendant adults with small spiders. Fabricius described several of our commonest species, but it is to Saussure that we are indebted for most of the information about this group (Monograph des Guêpes Sociales [1853-58]).

171. ICARIA.

Icaria, Sauss. Mon. Guêpes Soc. p. 22 (1853).

CABETI, Sauss. l.c. p. 26, 4, t. 5, fig. 2.

Tasmania.

GREGARIA, Sauss. Ent. Zeit. Stettin, XXIII. p. 137 (1862).

PLEBEJA, Sauss. Mém. Soc. Phys. Genève, XVII. pt. 1,
p. 235 (1863).

1050 REVOLUTIONALIS, Sauss. Mon. Guêpes Soc. p. 29, 7, t. 5, fig. 7.

Tasmania and Australia.

ROMANDI, Le Guillou (*Polistes*), Ann. Soc. Ent. France, X.
(1), p. 322 ; Sauss. Mon. Guêpes Soc. p. 41.

Australia.

SOCIALISTICA, Sauss. Mon. Guêpes Soc. p. 27, 5.

Tasmania.

172. POLISTES.

Polistes, Latr. Hist. Nat. Ins. XIII. (1804).

BERNARDII, Le Guil. Ann. Soc. Ent. France, X. (1), p. 23 ;
Sauss. Mon. Guêpes Soc. p. 70, 29.

ERYTHRINUS, Holmgren, Eugénies Resa, Hym. p. 440
(1858-68).

1055 FACILIS, Sauss. Mon. Guêpes Soc. p. 53, 9.

Australia.

HUMILIS, Fabr. (*Vespa*), Spec. Ins. I. p. 461, 20; Mant. Ins. I. p. 288, 23; Ent. Syst. II. p. 261, 28; Oliv. Ency. Méth. VI. p. 682, 62; Fabr. Syst. Piez. p. 270, 5; Sauss. Mon. Guêpes Soc. p. 52, 8.

N. S. Wales.

NOVARÆ, Sauss. Reise Novara, Hym. p. 19, figs. 13 & 14.
Australia.

PICTETI, Sauss. Mon. Guêpes Soc. p. 69, 28, t. 6, fig. 8.
Australia and Ceram.

SCHACH, Fabr. (*Vespa*), Spec. Ins. I. p. 461, 18; Mant. Ins. I. p. 288, 21; Ent. Syst. II. p. 260, 25; Oliv. Ency. Méth. VI. p. 682, 60; Fabr. Syst. Piez. p. 270, 2; Sauss. Mon. Guêpes Soc. p. 50, 3; *Vespa orientalis*, St. Farg. Hym, I. p. 519.

Australia.

1060 SYNÆCUS, Sauss. Mon. Guêpes Soc. p. 65, 22, t. 6, fig. 5.
Australia.

TASMANIENSIS, Sauss. l.c. p. 66, 23, t. 6, fig. 5.
Australia.

TEPIDUS, Fabr. (*Vespa*), Syst. Ent. p. 366, 17; Spec. Ins. I. p. 462, 21; Ent. Syst. II. p. 262, 31; Mant. Ins. I. p. 287; Christ, Hym. p. 242; Oliv. Ency. Méth. VI. p. 682, 64; Fabr. Syst. Piez. p. 271, 7; Sauss. Mon. Guêpes Soc. p. 68, 27, t. 8, fig. 1.

Australia, New Guinea, and Solomon Islands.

TRICOLOR, Sauss. Mon. Guêpes, p. 67, 25.
Australia.

VARIABILIS, Fabr. (*Vespa*), Syst. Ent. II. p. 274, 73; Oliv. Ency. Méth. VI. p. 690, 104; Fabr. Syst. Piez. 273. 20; Sauss. Mon. Guêpes. Soc. p. 66, 24.

Sydney, S. Australia, &c.

Family ANDRENIDÆ.

Nearly all the species of this family from Australia were described by the late F. Smith, Esq., of the British Museum, and

the majority of the descriptions will be found in the British Museum Catalogue of Hymenoptera (1853), in the Transactions of the Entomological Society of London (1862-64, 1866, 1868), and in "New Species of Hymenoptera, British Museum" (1879). This family contains the bees with short tongues, solitary in their habits, while many of them are parasitic ; but hardly anything is known about the habits of any of our Australian *Andrenidæ*.

173. PARACOLLETES.

Paracolletes, Sm. MSS. ; Brit. Mus. Cat. Hym. Pt. i. p. 6 (1853).

1065 ABDOMINALIS, Sm. New Sp. Hym. Brit. Mus. p. 5 (1879).
Champion Bay, W.A.

CRASSIPES, Sm. Brit. Mus. Cat. Hym. p. 6 (1853).
Swan River, W.A.

FERVIDUS, Sm. New Sp. Hym. Brit. Mus. p. 4 (1879).
N. Holland.

MARGINATUS, Sm. l.c. p. 4.
Queensland.

NITIDUS, Sm. l.c. p. 3.
N.W. Coast, Australia.

174. LEIOPROCTUS.

Leioproctus, Sm. MSS. ; Brit. Mus. Cat. Hym. Pt. i. p. 8 (1853).

1070 ELEGANS, Sm. Brit. Mus. Cat. Hym. p. 9 (1853).
Adelaide, S.A.

FIMBRICATUS, Sm. New Sp. Hym. Brit. Mus. p. 6 (1879).
Australia.

FRONTALIS, Sm. Brit. Mus. Cat. Hym. p. 9 (1853).
N. Holland.

VIGILANS, Sm. New Sp. Hym. Brit. Mus. p. 7 (1879).
Swan River, W.A.

175. LAMPROCOLLETES.

Lamprocolletes, Sm. MSS. ; Brit. Mus. Cat. Pt. i. p. 10
(1853). •

AMABILIS, Sm. New Sp. Hym. Brit. Mus. p. 9 (1879).
Australia.

1075 ANTENNATUS, Sm. l.c. p. 10.
Swan River, W.A.

ARGENTIFRONS, Sm. l.c. p. 11.
Swan River, W.A.

AURIFRONS, Sm. Brit. Mus. Cat. Hym. p. 13 (1853).
Adelaide, S.A.

BICOLOR, Sm. New Sp. Hym. Brit. Mus. p. 10.
Swan River, W.A.

BIMACULATUS, Sm. l.c. p. 10.
Swan River, W.A.

1080 CARINATUS, Sm. Brit. Mus. Cat. Hym. p. 11 (1853).
New Holland.

CHALYBEATA (*Andrena*), Erichs. Wieg. Arch. 1842, p. 268,
243.

Tasmania.

CINEREUS, Sm. Brit. Mus. Cat. Hym. p. 12 (1853).
S. Australia.

CLADOCERUS, Sm. Trans. Ent. Soc. I. (3), p. 57 (1862-64);
l.c. II. (3), p. 397, pl. XXI. fig. 3 ♂ (1864-66).
Sydney, N.S.W.

CRISTATUS, Sm. Brit. Mus. Cat. Hym. p. 11 (1853).
Australia.

1085 CUPREUS, Sm. l.c. p. 13.
Adelaide, S.A.

FULVUS, Sm. New Sp. Hym. Brit. Mus. p. 9 (1879).
Queensland.

IRRORATUS, Sm. Brit. Mus. Cat. Hym. p. 12 (1853).
Port Phillip, Vic.

METALLICUS, Sm. New Sp. Hym. Brit. Mus. p. 8 (1879).
Australia.

NANUS, Sm. l.c. p. 9.
W. Australia.

- 1090 *OBSCURUS*, Sm. Brit. Mus. Cat. Hym. p. 11 (1853).
Tasmania.
- *PLUMOSUS*, Sm. l.c. p. 12.
Swan River, W.A.
- PROVIDUS*, Sm. New Sp. Hym. Brit. Mus. p. 8 (1879).
Australia.
- PUNCTATUS*, Sm. Brit. Mus. Cat. Hym. p. 14 (1853).
Adelaide, S.A.
- RUBELLUS*, Sm. Trans. Ent. Soc. 1868, p. 253.
W. Australia.
- 1095 *RUFICORNIS*, Sm. New Sp. Hym. Brit. Mus. p. 10 (1879).
W. Australia.
- VENUSTUS*, Sm. Trans. Ent. Soc. I. (3), p. 57 (1862-64).
S. Australia; Lower Plenty, Vic.
- VERSICOLOR*, Sm. Brit. Mus. Cat. Hym. p. 14 (1853).
Adelaide, S.A.

176. *DASYCOLLETES*.

- Dasycolletes*, Sm. MSS.; Brit. Mus. Cat. p. 14.
- HUMEROSUS*, Sm. New Sp. Hym. Brit. Mus. p. 11 (1879).
Melbourne, Vic.
- RUBELLUS*, Sm. Trans. Ent. Soc. I. (3), p. 58 (1862-64).
S. Australia; Lower Plenty, Vic.
- 1100 *VITRIFRONS*, Sm. New Sp. Hym. Brit. Mus. p. 11 (1879).
Swan River, W.A.

177. *ANTHOGLOSSA*.

- Anthoglossa*, Sm. MSS.; Brit. Mus. Cat. Hym. Pt. i. p. 16
(1853).
- PLUMATA*, Sm. Brit. Mus. Cat. Hym. p. 16 (1853).
W. Australia.
- SERICEA*, Sm. Trans. Ent. Soc. I. (3), p. 59 (1862-64).
Australia.

178. *EURYGLOSSA*.

- Euryglossa*, Sm. MSS.; Brit. Mus. Cat. Hym. Pt. i. p. 17
(1853).
- BICOLOR*, Sm. Trans. Ent. Soc. I. (3), p. 58 (1862-64).
Adelaide, S.A.

- BLANDA, Sm. New Sp. Hym. Brit. Mus. p. 13 (1879).
W. Australia.
- 1105 CUPREO-CHALYBEA, Sm. Brit. Mus. Cat. Hym. p. 17 (1853).
Australia.
- DEPRESSA, Sm. l.c. p. 18.
Australia.
- EPHIPPIATA, Sm. Trans. Ent. Soc. I. (3), p. 58 (1862-64).
Adelaide, S.A.
- FLAVOPICTA, Sm. New Sp. Hym. Brit. Mus. p. 14 (1879).
Champion Bay, W.A.
- HALICTIFORMIS, Sm. l.c. p. 15.
Swan River, W.A.
- 1110 JUCUNDA, Sm. l.c. p. 13.
Champion Bay and Swan River, W.A.
- MACULATA, Sm. l.c. p. 13.
Swan River, W.A.
- NIGRA, Sm. l.c. p. 13.
Australia.
- NITIDIFRONS, Sm. l.c. p. 14.
Australia.
- QUADRIMACULATA, Sm. l.c. p. 13.
Queensland.
- 1115 RUBRICATA, Sm. l.c. p. 14.
Swan River, W.A.
- SIMILLIMA, Sm. l.c. p. 12.
Swan River, W.A.
- TERMINATA, Sm. Brit. Mus. Cat. Hym. p. 18 (1853).
Australia.
- TRICOLOR, Sm. New Sp. Hym. Brit. Mus. p. 15 (1879)
Swan River, W.A.
- VILLOSULA, Sm. l.c. p. 15.
Swan River, W.A.

179. STILPNOSOMA.

- Stilpnosoma*, Sm. New Sp. Hym. Brit. Mus. p. 16 (1879).
- 1120 LÆVIGATUM, Sm. l.c. p. 16.
Queensland.

180. PROSOPIS.

Prosopis, Fabr. Piez. Syst. p. 293 (1804).

- ALBOMACULATA, Sm. New Sp. Hym. Brit. Mus. p. 24 (1879).
Champion Bay, W.A.
- ALCYONEA, Erichs. Wieg. Arch. 1842, p. 267, 241.
Tasmania.
- AMICULA, Sm. New Sp. Hym. Brit. Mus. p. 19 (1879).
Melbourne, Vic.
- BICOLORATA, Sm. Brit. Mus. Cat. Hym. p. 27 (1853).
Adelaide, S.A.
- 1125 BIDENTATA, Sm. l.c. p. 28.
Australia.
- BITUBERCULATA, Sm. New Sp. Hym. Brit. Mus. p. 18 (1879).
Melbourne, Vic.
- COGNATA, Sm. New Sp. Hym. Brit. Mus. p. 18 (1879).
Champion Bay and Swan River, W.A.
- CONFUSA, Sm. Brit. Mus. Cat. Hym. p. 30 (1853); *Prosopis*
perplexa, Sm. Appen. Brit. Mus. Cat. Hym. p. 42 (1853).
Australia.
- DESPONSA, Sm. Brit. Mus. Cat. Hym. p. 31 (1853).
Australia.
- 1130 ELEGANS, Sm. l.c. p. 28.
Adelaide, S.A.
- ELONGATA, Sm. New Sp. Hym. Brit. Mus. p. 18 (1879).
Adelaide, S.A.
- FULVICORNIS, Sm. Brit. Mus. Cat. Hym. p. 27 (1853).
Adelaide, S.A.
- HONESTA, Sm. New Sp. Hym. Brit. Mus. p. 19 (1879).
Tasmania.
- IMPRESSIFRONS, Sm. Brit. Mus. Cat. Hym. p. 31 (1853).
Australia.
- 1135 LATERALIS, Sm. New Sp. Hym. Brit. Mus. p. 23 (1879).
Champion Bay, W.A.
- METALLICA, Sm. Trans. Ent. Soc. I. (3), p. 59 (1862-64).
Australia.

- MOROSA, Sm. New Sp. Hym. Brit. Mus. p. 26 (1879).
Australia.
- NIGRIFRONS, Sm. Brit. Mus. Cat. Hym. p. 30 (1853).
Australia.
- NUBILOSA, Sm. l.c. p. 31.
Port Phillip, Vic.
- 1140 OBTUSATA, Sm. New Sp. Hym. Brit. Mus. p. 17 (1879).
Swan River, W.A.
- PENETRATA, Sm. l.c. p. 25.
Australia.
- QUADRATA, Sm. Brit. Mus. Cat. Hym. p. 28 (1853).
Australia.
- QUADRICEPS, Sm. New Sp. Hym. Brit. Mus. p. 17 (1879).
Australia.
- RUBRICATA, Sm. New Sp. Hym. Brit. Mus. p. 25 (1879).
Swan River, W.A.
- 1145 RUFICEPS, Sm. Brit. Mus. Cat. Hym. p. 29 (1853).
Adelaide, S.A.
- RUFIPES, Sm. l.c. p. 27.
Australia.
- ROTUNDICEPS, Sm. New Sp. Hym. Brit. Mus. p. 19 (1879).
Melbourne, Vic.
- SIMILLIMA, Sm. l.c. p. 26.
Moreton Bay, Q.
- SIMILIS, Sm. Brit. Mus. Cat. Hym. p. 26 (1853).
Australia.
- 1150 SULCIFRONS, Sm. l.c. p. 27.
Australia.
- TORRIDA, Sm. New Sp. Hym. Brit. Mus. p. 25 (1879).
Queensland.
- VARICOLOR, Sm. l.c. p. 24.
Port Bowen, Q.
- VICINA, Sichel, Reise Novara, Hym. p. 143.
Tasmania and New Zealand.
- VIDUA, Sm. Brit. Mus. Cat. Hym. p. 29 (1853).
Australia.

1155 VIOLACEA, Sm. l.c. p. 26.

Swan River, W.A.

181. HYLEOIDES.

Hyleoides, Sm. Brit. Mus. Cat. Hym. Pt. i. p. 32 (1853).

CONCINNA (*Vespa*), Fabr. Syst. Ent. II. p. 263, 38; Cab.

Banks. Mus. Linn. Soc.; Syst. Piez. p. 259, 30.

Port Phillip, Vic.

ZONALIS, Sm. Brit. Mus. Cat. Hym. p. 32 (1853),

Hunter River, N.S.W.

182. MEROGLOSSA.

Meroglossa, Sm. Brit. Mus. Cat. Hym. Pt. i. p. 33 (1853).

CANALICULATA, Sm. Brit. Mus. Cat. Hym. p. 33 (1853).

Port Essington, N.A.

183. SPHECODES.

Sphcodes, Latr. Hist. Nat. XIII. p. 368 (1805).

ANTIPODES, Sm. Brit. Mus. Cat. Hym. p. 37 (1853).

Sydney, N.S.W.

184. PARASPHECODES.

Parasphcodes, Sm. Brit. Mus. Cat. Hym. Pt. i. p. 39 (1853)

1160 ALTICHUS, Sm. Brit. Mus. Cat. Hym. p. 42 (1853).

Tasmania.

HILACTUS, Sm. l.c. p. 39.

Swan River, W.A.

HILTACUS, Sm. l.c. p. 39.

Australia.

LACTHIUS, Sm. l.c. p. 40.

Australia.

LICHATUS, Sm. l.c. p. 40.

W. Australia.

1165 LICHTUSCA, Sm. l.c. p. 41.

Tasmania.

STUCHILA, Sm. l.c. p. 42.

Tasmania.

- SULTHICA, Sm. l.c. p. 40.
Australia.
- TALCHIUS, Sm. l.c. p. 42.
Tasmania.
- TALUCHIS, Sm. l.c. p. 43.
Tasmania.
- 1170 TILACHUS, Sm. l.c. p. 41.
Tasmania.
- TUCHILAS, Sm. l.c. p. 41.
Australia.
185. HALTICUS
- Halticus*, Latr. Hist. Nat. XIII. p. 364 (1805).
- BICINGULATUS, Sm. Brit. Mus. Cat. Hym. p. 57 (1853).
Melbourne, Vic.
- CARBONARIUS, Sm. l.c. p. 58.
Sydney, N.S.W.
- COGNATUS, Sm. l.c. p. 59.
Tasmania.
- 1175 CONSPICUUS, Sm. New Sp. Hym. Brit. Mus. p. 34 (1879).
Australia.
- CONVEXUS, Sm. l.c. p. 35.
Victoria.
- FLORALIS, Sm. Brit. Mus. Cat. Hym. p. 57 (1853).
Australia.
- GLOBOSUS, Sm. l.c. p. 59.
Tasmania.
- HUMILIS, Sm. New Sp. Hym. Brit. Mus. p. 36 (1879).
Champion Bay, W.A.
- 1180 INCLINANS, Sm. l.c. p. 36.
Champion Bay, W.A.
- LANUGINOSUS, Sm. l.c. p. 34.
Australia.
- LANARIUS, Sm. Brit. Mus. Cat. Hym. p. 57 (1853).
Hunter River, N.S.W.
- LIMBATUS, Sm. l.c. p. 59.
Tasmania.

- OBLITUS, Sm. New Sp. Hym. Brit. Mus. p. 35 (1879).
Swan River, W.A.
- 1185 ORBATUS, Sm. Brit. Mus. Cat. Hym. p. 58 (1853).
Tasmania.
- PUNCTATUS, Sm. New Sp. Hym. Brit. Mus. p. 36 (1879).
Champion Bay, W.A.
- REPRESENTANS, Sm. Brit. Mus. Cat. Hym. p. 60 (1853).
Australia and Tasmania.
- RUFIPES, Sm. l.c. p. 56.
Melbourne, Vic.
- SPHECODOIDES, Sm. l.c. p. 58.
Australia.
- 1190 URBANUS, Sm. New Sp. Hym. Brit. Mus. p. 35 (1879).
Champion Bay, W.A.
- VITRIPENNIS, Sm. l.c. p. 34.
Champion Bay, W.A.
- VIVIDUS, Sm. l.c. p. 35.
Swan River, W.A.

186. CALLOMELITTA.

- Callomelitta*, Sm. Brit. Mus. Cat. p. 85 (1853).
- PICTA, Sm. Brit. Mus. Cat. Hym. p. 85 (1853).
Tasmania.

187. NOMIA.

- Nomia*, Latr. Hist. Nat. XIII. p. 369 (1805).
- ARGENTIFRONS, Sm. Trans. Ent. Soc. I. (3), p. 60 (1862-64).
Australia.

188. ANDRENA.

- Andrena*, Fabr. Syst. Ent. p. 376 (1793).
- 1195 ADVENA, Sm. Trans. Ent. Soc. I. (3), p. 60 (1862-64).
Australia.

189. STENOTRITUS.

- Stenotritus*, Sm. Brit. Mus. Cat. p. 119 (1853).
- ELEGANS, Sm. Brit. Mus. Cat. Hym. p. 119 (1853).
Sydney, N.S.W.

SMARAGDINUS, Sm. Trans. Ent. Soc. II. (3), p. 254 (1864-66).
Champion Bay, W.A.

190. MELLITIDIA.

Mellitidia, Guér. Voy. Coq. Zool. II. p. 269 (1830).

AUSTRALIS, Guér. Voy. Coq. Zool. II. p. 269.

Australia.

191. SCRAPTER.

Scrapper, St. Farg. Ency. Méth. X. p. 403.

BICOLOR, Sm. Trans. Ent. Soc. I. (3) p. 61 (1862-64).

Australia.

1200 CARINATA, Sm. l.c. p. 60.

Australia.

192. ÆSTROPSIS.

Æstropsis, Sm. Trans. Ent. Soc. 1864-66.

PUBESCENS, Sm. Trans. Ent. Soc. (1868), p. 253.

Champion Bay, W.A. ; S. Australia.

Family APIDÆ.

This very interesting family is well represented in Australia, although there have been few workers at our Australian bees. Smith has described the majority of our known species in the British Museum Catalogue of Hymenoptera (1853), where he also catalogues those previously described by Fabricius, St. Fargeau, and others. Since then he has contributed further papers in the Transactions of the Entomological Society of London (1862-64, 1864-66, and 1868), in the Zoologist for 1859, and in "New Species of Hymenoptera in the British Museum" (1879).

In the genus *Megachile* we have a great number of handsome bees that form nests in trees and walls, the cells of which they line with leaves; while several species of the genus *Xylocopa* (the carpenter bees) are numerous in Australia, and one species forms its nest in the flower-stem of the grass-tree (*Xanthorrhœa*).

Only one species of native bee (*Trigonia carbonaria*) has been described, though there are certainly two, if not three species in

N. S. Wales ; they form flask-shaped cells to contain the honey, and coat the inner side of the cavity in which they construct their nest with gum.

193. MEGACHILE.

Megachile, Latr. Hist. Nat. III. (1802).

ABDOMINALIS, Sm. Brit. Mus. Cat. Hym. Pt. i. p. 169 (1853).
Australia.

ALBOBASALIS, Sm. New Sp. Hym. Brit. Mus. p. 65 (1879).
Torres Straits, N.A.

APICATA, Sm. Brit. Mus. Cat. Hym. Pt. i. p. 172 (1873).
Adelaide, S.A.

1205 AURIFRONS, Sm. l.c. p. 168.
Australia.

CALIDA, Sm. New Sp. Hym. Brit. Mus. p. 64 (1879).
Queensland.

CANIFRONS, Sm. Brit. Mus. Cat. Hym. p. 171 (1853).
W. Australia.

CHRYSOPYGA, Sm. l.c. p. 173.
Tasmania.

CLYPEATA, Sm. l.c. p. 170.
W. Australia.

1210 ERYTHROPYGA, Sm. l.c. p. 167.
W. Australia.

FABRICATOR, Sm. Trans. Ent. Soc. 1868, p. : 56.
Champion Bay, W.A.

FEROX, Sm. New Sp. Hym. Brit. Mus. p. 64 (1879).
Swan River, W.A.

FUMIPENNIS, Sm. Trans. Ent. Soc. 1868, p. 257.
Champion Bay, W.A.

HERIADIFORMIS, Sm. Brit. Mus. Cat. Hym. p. 172 (1853).
Adelaide, S.A.

1215 IGNITA, Sm. l.c. p. 169.
Australia.

IMITATA, Sm. Trans. Ent. Soc. 1868, p. 251.
Champion Bay, W.A.

LATIPES, Sm. Brit. Mus. Cat. Hym. p. 169 (1853).
Australia.

LEUCOPYGA, Sm. l.c. p. 173.

Tasmania.

LUCIDIVENTRIS, Sm. l.c. p. 168.

Australia.

1220 MACULATA, Sm. l.c. p. 170.

W. Australia.

MODESTUS, Sm. Trans. Ent. Soc. II. (3), p. 62 (1862-64).

Australia.

MONSTROSA, Sm. Trans. Ent. Soc. 1868, p. 256 ; Brenchley's
Cruise of Curaçoa, p. 463, pl. XLV. fig. 5, ♀ (1873).

N.W. Australia ; Champion Bay, W.A.

MYSTACEA (*Apis*), Fabr. Syst. Ent. p. 385, 41 ; Ent. Syst.
II. p. 336, 97 ; *Anthophora mystacea*, Fabr. Syst. Piez.
p. 377, 24 ; Sm. Brit. Mus. Cat. Hym. p. 166 (1853).

Port Essington, N.A.

NASUTA, Sm. Trans. Ent. Soc. 1868, p. 258.

Champion Bay, W.A.

1225 OBLONGA, Sm. New Sp. Hym. Brit. Mus. p. 65 (1879).

W. Australia.

OBTUSA, Sm. Brit. Mus. Cat. Hym. p. 170 (1853).

W. Australia.

ORDINARIA, Sm. l.c. p. 174.

Tasmania.

PICTIVENTRIS, Sm. New Sp. Hym. Brit. Mus. p. 65 (1879).

Richmond River, N.S.W.

PUNCTATA, Sm. Brit. Mus. Cat. Hym. p. 168 (1853).

Australia.

1230 RUGOSA, Sm. New Sp. Hym. Brit. Mus. p. 65 (1879).

W. Australia.

SEMI-LUCTUOSA, Sm. Brit. Mus. Cat. Hym. p. 172 (1853).

Adelaide, S.A.

SENEX, Sm. Trans. Ent. Soc. II. (3), p. 61 (1862-64).

Richmond River, N.S.W.

SEXMACULATA, Sm. Trans. Ent. Soc. 1868, p. 257.

Champion Bay, W.A.

246 CATALOGUE OF THE DESCRIBED HYMENOPTERA OF AUSTRALIA,

SIMPLEX, Sm. Brit. Mus. Cat. Hym. p. 169 (1853).
Australia.

1235 USTULATA, Sm. Trans. Ent. Soc. II. (3), p. 61 (1862-64).
Australia.

194. LITHURGUS.

Lithurgus, Latr. Gen. Crust. et Ins. II. p. 350.

COGNATUS, Sm. Trans. Ent. Soc. 1862, p. 255.
Champion Bay, W.A.

DENTIPES, Sm. Brit. Mus. Cat. Hym. p. 146 (1854).
Australia.

RUBRICATUS, Sm. l.c. p. 146.
Australia.

195. ALLODAPE.

Allodape, St. Farg. Hym. II. p. 531.

PICTA, Sm. Brit. Mus. Cat. Hym. Pt. ii. p. 231 (1854).
Australia.

1240 SIMILLIMA, Sm. l.c. p. 229.
Macintyre River, Q.

UNICOLOR, Sm. l.c. p. 230.
Australia.

196. EXONEURA.

Exoneura, Sm. Brit. Mus. Cat. Hym. Pt. ii. p. 232 (1854).

BICOLOR, Sm. l.c. p. 232.
Swan River, W.A.

197. CROCISA.

Crocisa, Jurine, Hym. p. 239 (1807).

ALBO-MACULATA, Sm. Trans. Ent. Soc. 1868, p. 258.
Champion Bay, W.A.

LAMPROSOMA, Boisd. Voy. de l'Astrolabe, p. 653, t. 12, fig. 4;
Crocisa novæ-hollandiæ, St. Farg. Hym. II. p. 450.
Hunter River, N.S.W.

1245 LUGUBRIS, Sm. New Sp. Hym. Brit. Mus. p. 107 (1879).
Australia.

NITIDULA (*Melecta*), Fabr. Syst. Piez. p. 386, 2; Latr. Gen. Crust. Ins. IV. p. 172; *Crocisa pulchella*, Guér. Icon. Règ. Anim. p. 454, 74.
Richmond River, N.S.W.

198. TETRALONIA.

Tetralonia, Spinola, Ann. Soc. Ent. Fr. VII. (1838).
BREVICORNIS, Sm. Brit. Mus. Cat. Hym. p. 303 (1854).
Moreton Bay, Q.

199. SAROPODA.

Saropoda, Latr. Gen. Crust. et Ins. IV. p. 179 (1809).
BOMBIFORMIS, Sm. Brit. Mus. Cat. Hym. p. 318 (1854).
Richmond River, N.S.W.

200. ANTHOPHORA.

Anthophora, Latr. Hist. Nat. Cr. et Ins. XIV. p. 45 (1804).
ÆRUGINOSA, Sm. Brit. Mus. Cat. Hym. p. 336 (1854).
Hunter River, N.S.W.

1250 CINGULATA (*Andrena*), Fabr. Ent. Syst. II. p. 314, 30;
St. Farg. Hym. II. p. 46, 20; *Megilla cingulata*, Fabr. Syst. Piez. p. 332, 18; *Megilla cincta*, Fabr. Syst. Piez. p. 330.
Australia.

EMENDATA, Sm. New Sp. Hym. Brit. Mus. p. 123 (1879).
Australia.

PULCHRA, Sm. Brit. Mus. Cat. Hym. p. 335 (1854).
Moreton Bay, Q.; Hunter River, N.S.W., &c.

201. XYLOCOPA.

Xylocopa, Latr. Nat. Hist. Ins. III. p. 379 (1802).
ÆSTUANS (*Apis*), Linn. Syst. Nat. I. p. 961, 53; Fabr. Syst. II. p. 323, 41; St. Farg. Hym. II. p. 193; *Apis leucothorax*, De Geer, Ins. III. p. 573, 4, t. 28, fig. 7;
Bombus æstuans, Fabr. Syst. Piez. p. 351, 44.
Australia and the islands.

DIMIDIATA, St. Farg. Hym. III. p. 191, 44.
N. Queensland; Timor, &c.

- 1255 MUSCARIA (*Apis*), Fabr. Ent. Syst. II. p. 339, 105; Oliv. Ency. Méth. IV. p. 77, 88; *Centris muscaria*, Fabr. Syst. Piez. p. 358, 20; *Lestis muscaria*, St. Farg. Hym. II. p. 211, 1.

Australia.

- NIGRITA, Sm. Zoologist, 1859, p. 64, 68.

Australia.

- SIMILLIMA, Sm. Brit. Mus. Cat. Hym. p. 357 (1854).

Australia.

202. LESTIS.

Lestis, St. Farg. Hym. II. p. .

- ÆRATUS, Sm. Trans. Ent. Soc. I. (2), p. 180 (1850-51).

Hunter River, N.S.W.; Tasmania.

- BOMBYLANS (*Apis*), Fabr. Ent. Syst. II. p. 338, 104; Sm.

Trans. Ent. Soc. I. (2), p. 180 (1850-51).

Australia.

203. TRIGONA.

Trigona, Jurine. Hym. (1807).

- 1260 CARBONARIA, Sm. Brit. Mus. Cat. Hym. p. 414 (1854).

N. S. Wales.

204. THAUMATOSOMA.

Thaumatosoma, Sm. Trans. Ent. Soc. 1864.

- DUBOULAH, Sm. Trans. Ent. Soc. II. (3), p. 395, pl. XXI. fig. 1 (1864-66).

Champion Bay, W.A.